

Translation

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Rec'd PCT/PTO 21 APR 2005

PCT/EP2003/050708

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

532,179
10/532179

Applicant's or agent's file reference PF020144	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/050708	International filing date (day/month/year) 13 octobre 2003 (13.10.2003)	Priority date (day/month/year) 28 octobre 2002 (28.10.2002)
International Patent Classification (IPC) or national classification and IPC G02F 1 /1335		
Applicant THOMSON LICENSING S.A.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>3</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 01 juillet 2004 (01.07.2004)	Date of completion of this report 27 January 2005 (27.01.2005)
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/050708

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-26 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-11 _____, filed with the letter of _____ 25 November 2004 (25.11.2004)
- ☒ the drawings:
pages _____ 1/10-10/10 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims	1-11	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

2. Citations and explanations

1.1 Reference is made to the following document:

D1: US-A1-2002024618

2.1 D1, which is considered the prior art closest to the subject matter of independent claim 1, describes (the references in brackets are to that document):

a display system (cf. "third embodiment", figure 7 coupled to the "color switching illumination unit" shown in figure 12 and associated with the "focusing means" described in paragraph 64) comprising:

- * a light source coupled to a matrix filter formed by a mosaic of coloured filters (cf. paragraph 75, also mentioned in paragraphs 60 and 61);
- * a spatial light modulator (SLM) (1) formed by pixels (4);
- * means of producing an image of the coloured filter on the modulator (cf. paragraph 64, where the solution can actually be applied);
- * moving means and corresponding control device (implicit) for moving the filter image over the SLM input face (cf. paragraph 73 and figure 12).

Therefore the subject matter of claim 1 differs from D1 in that claim 1 specifies that an image of each elementary filter is produced on the SLM so as to cover a plurality of pixels whilst, in D1, each pixel is associated with one (cf. figure 12) or several (cf. figures 8 to 10) coloured unit(s).

Therefore the subject matter of claim 1 is novel (PCT Article 33(2)).

- 2.2 The present application and D1 concern the problem of colour break up when coloured images are projected in sequential colour mode. However, the present application provides a solution that consists in illuminating several pixels with a single coloured filter, enabling the problem to be overcome in a simplified manner. In particular, the display system to which claim 1 relates eliminates the optical constraints of D1 in which a 1-1 match has to be established between the coloured units and pixels.

In view of the specific nature of the problem solved, it would appear difficult, in the absence of further motivation, to combine this new feature with the D1 system. Consequently the solution proposed in claim 1 of the present application is considered to involve an inventive step (PCT Article 33(3)).

3. Claims 2 to 11 are dependent on claim 1 and hence likewise satisfy the PCT novelty and inventive step requirements.

4. The description is inconsistent with the claims (PCT Article 5.1(a)(iii)). In particular, the possibility of a 1-1 match between the coloured filters and pixels should be eliminated (cf. page 3, line 17; page 4, line 18; page 11, line 18). Furthermore, although the interpretation of figures 6 to 8 does not necessarily imply a 1-1 match of filters and pixels, from page 18 onwards, it would be advantageous to specify (at least once) that a "point" corresponds to a plurality of pixels. Finally, on page 25, lines 8 and 9, the word "pixels" should be replaced by "point".
5. The application as originally filed does not appear to meet the formatting requirements under PCT Rule 11. As a result, some figures (in particular figures 6a to 6l) have been cut off during copying, such that the corresponding embodiment is incomprehensible because the cut-off parts (first and last data columns) are missing. However, in light of the description and succession of the figures, it appears that entire figures 6a to 6l would be acceptable and would not contravene PCT Article 34(2)(b).